Analogy

'Analogy' means 'correspondence'.

In questions based on analogy, a particular relationship is given and another similar relationship has to be identified from the alternatives provided. Analogy tests are, therefore, meant to test a candidate's overall knowledge, power of reasoning and ability to think concisely and accurately. Below are given some common relationships which will help you to detect most analogies better:

Common relationships

1. **Country and capital :**

   Ex. Afghanistan : Kabul

   Kabul is the capital of Afghanistan.

2. **State and capital :**

   Ex. Maharashtra : Mumbai

   Mumbai is the capital of Maharashtra.

3. **Country and currency :**

   Ex. India : Rupee

   Rupee is the currency of India.

4. **Instrument and measurement :**

   Ex. Barometer : Pressure

   Barometer is an instrument used to measure pressure.

5. **Quantity and units :**

   Ex. Length : Metre

   Metre is the unit of measuring length.

6. **Individual and group :**

   Ex. Sailors : Crew

   A group of sailors is called a crew.

7. **Animal and young one :**

   Ex. Cow : Calf

   Calf is the young one of cow.

8. **Male and female :**

   Ex. Horse : Mare

   Mare is the female horse.

9. **Animal and movement :**

   Ex. Duck : Waddle

   Waddle is the name given to the movement of the duck.

10. **Animal/thing and sound :**

    Ex. Lion : Roar

    Roar is the sound produced by a lion.

11. **Individual/thing and class :**

    Ex. Lizard : Reptile

    Lizard belongs to the class of Reptiles.

12. **Individual and dwelling place :**

     Ex. Dog : Kennel

     A dog lives in a kennel.

13. **Animals/things and keeping place :**

     Ex. Car : Garage

     A car is kept in a garage.

14. **Games and place of playing :**

     Ex. Badminton : Court

     Badminton is played on a court.

15. **Worker and tool :**

     Ex. Blacksmith : Anvil

     Anvil is the tool used by a blacksmith.

16. **Tool and action :**

     Ex. Needle : Sew

     A needle is used for sewing.

17. **Worker and working place :**

     Ex. Chef : Kitchen

     A chef works in a kitchen.

18. **Worker and product :**

     Ex. Mason : Wall

     A mason builds a wall.

19. **Product and raw material :**

     Ex. Prism : Glass

     Prism is made of glass.

20. **Part and whole relationship :**

     Ex. Pen : Nib

     Nib is a part of a pen.

21. **Pair relationship :**

     Ex. Shoes : Socks

     Shoes and socks go together.

22. **Study and topic :**

     Ex. Ornithology : Birds

     Ornithology is the study of birds.

23. **Word and intensity :**

     Ex. Anger : Rage

     Rage is of higher intensity than Anger.

24. **Word and synonym :**

     Ex. Abode : Dwelling

     Abode means almost the same as Dwelling. Thus, Dwelling is the synonym of Abode.

25. **Word and antonym :**

     Ex. Attack : Defend

     Defend means the opposite of Attack. Thus, Defend is the antonym of Attack.

1. Completing the analogous pair

In this type of questions, two words are given. These words are related to each other in some way. Another word is also given. The candidate is required to find out the relationship between the first two words and choose the word from the given alternatives, which bears the same relationship to the third word, as the first two bear.

Solved examples

Ex.1 Anaemia : Blood :: Anarchy :?

    (1) Lawlessness   (2) Government   (3) Monarchy   (4) Disorder

Sol. Anaemia is the state of lack of blood. Similarly, anarchy is the state of lack of government. So, the answer is (2).

Ex.2 Botany : Plants :: Entomology :?

    (1) Snakes   (2) Insects   (3) Birds   (4) Germs

Sol. Botany is the branch of science which deals with the study of plants. Similarly, Entomology is the branch of science which deals with the study of insects. So, the answer is (2).

Ex.3 Vigilant : Alert :: Viable :?

    (1) Active   (2) Hopeless   (3) Feasible   (4) Useful

Sol. 'Alert' is the synonym of 'Vigilant'. Similarly, the synonym of 'Viable' is 'Feasible'. So, the answer is (3).

2. Choosing the analogous pair

In this type of questions, a pair of words is given, followed by four pairs of words as alternatives. The candidate is required to choose the pair in which the words bear the same relationship to each other as the words of the given pair bear.

Ex.4 Fish : Shoal

    (1) Audience : Theatre   (2) Shark : School

    (3) Elephant : Flock   (4) Whale : Herd

Sol. A group of fish is called shoal. Similarly, a group of elephants is called flock. Hence, the answer is (3).

Ex.5 Energy : Joule

    (1) Axe : Grind   (2) Ammeter : Current   (3) Power : Ampere   (4) Resistance : Ohm

Sol. Joule is the unit of measuring energy. Similarly, Ohm is the unit of measuring resistance. Hence, the answer is (4).

Ex.6 Cigarette : Tobacco

    (1) Coffee : Caffeine   (2) Milk : Bottle   (3) Cigar : Filter   (4) Shoes : Socks

Sol. The prime constituent of cigarette is tobacco. Similarly, the prime constituent of coffee is caffeine. Hence, the answer is (1).

Ex.7 Chimney : Smoke

    (1) Tea : Kettle   (2) Clay : Ceramic   (3) House : Roof   (4) Gun : Bullet

Sol. Smoke comes out of chimney and bullet comes out of gun. Hence, the answer is (4).

3. Choosing a similar word

In this type of questions, a group of three/four words is given, followed by four other words as alternatives. The candidate is required to choose the alternative, which is similar to the given words.

Ex.8 Lucknow : Patna : Bhopal : Jaipur

(1) Indore   (2) Pune   (3) Mysore   (4) Shimla

Sol. Clearly, Lucknow, Patna, Bhopal and Jaipur are all capital cities of various Indian States (U.P., Bihar, M.P. and Rajasthan respectively). Similarly, Shimla is the capital of Himachal Pradesh. Hence, the answer is (4).

Ex.9 Sitar : Guitar : Tanpura

(1) Trumpet   (2) Violin   (3) Harmonium   (4) Mridanga

Sol. Sitar, Guitar and Tanpura are all string instruments. Violin is also a string instrument. Hence, the answer is (2).

4. Detecting analogies

In this type of questions, the candidate is required to trace out the hidden analogy or common characteristic among the given words or to choose the word which mentions the quality common to the given words.

Solved examples

Ex.10 Judo : Karate : Taekwando

(1) They are names of martial arts.   (2) They can be performed by obese persons.

(3) They are performed on stage.   (4) They are important items of Asian Games.

Sol. They are names of martial arts, hence the answer is (1).

5. Multiple word analogy

In this type of questions, a group of three or four inter-related words is given. The candidate is required to trace out the relationship among these words and choose another group with similar relationship, from amongst the alternatives provided.

Solved examples

Ex.11 Pen : Pencil : Ink

(1) Orange : Banana : Juice   (2) Table : Chair : Wood

(3) Cow : Milk : Curd   (4) Fish : Shark : Water

Sol. Clearly, pen contains ink and pencil belongs to the same category as pen i.e. stationary. Similarly, orange contains juice and banana belongs to the same category as orange i.e. fruits. Hence, the answer is (1).

Ex.12 Correspondent : News : Newspaper

(1) Road : Vehicle : Destination   (2) Cloud : Water : Ponds

(3) Farmer : Crops : Food   (4) Mason : Cement : Construction

Sol. Just as a correspondent collects and formates news for newspaper, so also a farmer grows and reaps crops for food. Hence, the answer is (3).

Ex.13 Tehsil : District : State : Country

    (1) Metropolitan : Megapolis : Town : City

    (2) Block : Colony : Zone : City

    (3) Province : District : State : Country

    (4) Madhya Pradesh : Maharashtra : Mumbai : Victoria Terminus

Sol. The given group contains four items of a hierarchial system, in the increasing order. Hence, the answer is (2)

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6. Number analogy

This section deals with four types of questions:

1. Choosing a number related to a given number in the same manner as the two numbers of another given pair are related to each other;

2. Choosing a similarly related pair as the given number pair on the basis of the relation between the numbers in each pair;

3. Choosing a number similar to a group of numbers on the basis of certain common properties that they possess;

4. Choosing a number set similar to a given number set.

Solved examples

Ex.14   3 : 11 :: 7 :?

    (1) 22   (2) 29   (3) 18   (4) 51

Sol. Clearly, $3^2 + 2 = 11$, Now, $7^2 + 2 = 51$. So, if the first number is x, the second number is $x^2 + 2$.

    Thus, the relationship is x : $x^2 + 2$.

    Hence, the answer is (4).

Ex.15 11 : 1210

    (1) 8 : 448   (2) 6 : 2160   (3) 7 : 1029   (4) 9 : 729

Sol. Clearly, the relationship is x : $x^2 (x - 1)$. This relationship exists in (1). Hence, the answer is (1).

Ex.16 Which number is like the given set of numbers? Given Set : (3, 17, 31)

    (1) 5   (2) 15   (3) 45   (4) 49

Sol. Clearly, the number in the given set are all prime numbers. 5 is also a prime number and so belongs to the same group. Hence, the answer is (1).

Ex.17 Which set of numbers is like the given set? Given Set : (48, 24, 12)

    (1) (44, 22, 10)   (2) (46, 22, 11)   (3) (40, 20, 10)   (4) (42, 20, 10)

Sol. Clearly, in the given set, the first number is twice the second and the second number is twice the third. A similar relationship exists between the numbers in the group (40, 20, 10). Hence, the answer is (3).

7. Alphabet analogy

In this type of questions, two groups of letters related to each other in some way, are given. The candidate is required to find out this relationship and then choose either a letter-group which is related in the same way to a third group provided in the question or a pair consisting of similarly related letter-groups.

SOLVED EXAMPLES

Ex.18 BEGK is related to ADFJ in the same way as PSVY is related to ....?....

    (1) LOQT   (2) ROUX   (3) OTUZ   (4) ORUX

Sol. Clearly, each letter of the first group in a pair is moved one step backward to obtain the corresponding letter of the second group.

B	E	G	K		P	S	V	Y
$-1\downarrow$	$-1\downarrow$	$-1\downarrow$	$-1\downarrow$		$-1\downarrow$	$-1\downarrow$	$-1\downarrow$	$-1\downarrow$
A	D	F	J		O	R	U	X

Hence, the answer is (4).

Ex.19 ABCD : NPRT : : FGHI :?

    (1) KLMN   (2) OQRT   (3) RTUW   (4) SUWY

Sol. Clearly, the first, second, third and fourth letters of the first group are moved 13, 14, 15 and 16 steps forward respectively to obtain the corresponding letters of the second group.

A	B	C	D		F	G	H	I
$+13\downarrow$	$+14\downarrow$	$+15\downarrow$	$+16\downarrow$		$+13\downarrow$	$+14\downarrow$	$+15\downarrow$	$+16\downarrow$
N	P	R	T		S	U	W	Y

Hence, the answer is (4).

Ex.20 BLOCKED : YOLXPVW : :? : OZFMXS

    (1) LAUNCH   (2) DEBATE   (3) LABOUR   (4) RESULT

Sol. Clearly, each letter in the first group occupies the same position from the beginning of the alphabet as it is occupied by the corresponding letter of the second group from the end of the alphabet.

Now, O, Z, F, M, X, S are respectively the 12th, 1st, 21st, 14th, 3rd, 8th letters from the end of the alphabet. Thus, the required letter-group shall have in order the 12th, 1st, 21st, 14th, 3rd, 8th letters from the beginning of the alphabet, which is LAUNCH. Hence, the answer is (1).

EXERCISE-1

Direction (Q.1 to Q.10) : In each of the following questions, there is a certain relationship between two given words on one side of : : and one word is given on another side of : : while another word is to be found from the given alternatives, having the same relation with this word as the words of the given pair bear. Choose the correct alternative.

1. Mango : Fruit :: Potato :?

   (1) Root　　　　(2) Fruit　　　　(3) Stem　　　　(4) Flower

2. Dog : Bark :: Goat :?

   (1) Bleat　　　　(2) Howl　　　　(3) Grunt　　　　(4) Bray

3. Laugh : Joy :: Weep :?

   (1) Grief　　　　(2) Remorse　　　　(3) Baby　　　　(4) Punishment

4. Rupee : India :: Yen :?

   (1) Turkey　　　　(2) Bangladesh　　　　(3) Japan　　　　(4) Pakistan

5. Thunder : Rain ::? : Night

   (1) Evening　　　　(2) Dark　　　　(3) Day　　　　(4) Dusk

6. Shoes is related to Cobbler in the same way as Eyeglasses is related to ....?...

   (1) Oculist　　　　(2) Ophthalmologist　　　　(3) Optometrist　　　　(4) Optician

7. Chef is related to Restaurant in the same way as Druggist is related to ...?...

   (1) Medicine　　　　(2) Pharmacy　　　　(3) Store　　　　(4) Chemist

8. Rhythm is related to Music in the same way as Design is related to ...?...

   (1) Symmetry　　　　(2) Architect　　　　(3) Beauty　　　　(4) Building

9. Boat is related to Sails in the same way as Balloon is related to ...?...

   (1) Hot air　　　　(2) Rope　　　　(3) Nylon　　　　(4) Rubber

10. Taj Mahal is related to Love in the same way as Jallianwala Bagh is related to ...?...

    (1) Amritsar　　　　(2) Martyrdom　　　　(3) War　　　　(4) Punjab

Direction (Q.11 to Q. 14) : Which set of letters completes the second pair in the same way as the first pair?

11. BYVE : GTQJ : : CXUF :?

    (1) HSQJ　　　　(2) IROL　　　　(3) HSPK　　　　(4) GTRI

12. QPRS : TUWV : : JIKL :?

    (1) NMOP　　　　(2) NMPO　　　　(3) MNPO　　　　(4) MNOP

13. ZRYQ : KBJA : : PWOV :?

    (1) GBHA　　　　(2) ISJT　　　　(3) FLEK　　　　(4) EOFP

14. ACEG : IKMO : : QSUW :?

    (1) YZCE　　　　(2) YACD　　　　(3) YACE　　　　(4) YBCE

Direction (Q.15 & Q. 16) : Identify the correct number which completes the second pair in the same way as the first pair.

15. 8 is to 28 as 27 is to?

    (1) 28   (2) 8   (3) 64   (4) 65

16. 25 is to 37 as 49 is to?

    (1) 41   (2) 56   (3) 60   (4) 65

Direction (Q.17 to Q.25) : In each of the following questions, there is a certain relationship between two given numbers on one side of : : and one number is given on another side of : : while another number is to be found from the given alternatives, having the same relationship with this number as the numbers of the given pair bear. Choose the best alternative.

17. 21 : 3 : : 574 :?

    (1) 23   (2) 82   (3) 97   (4) 113

18. 18 : 30 : : 36 :?

    (1) 54   (2) 62   (3) 64   (4) 66

19. 17 : 52 : : 1 :?

    (1) 3   (2) 4   (3) 5   (4) 51

20. 3 : 243 : : 5 :?

    (1) 425   (2) 465   (3) 546   (4) 3125

21. 20 : 11 : : 102 :?

    (1) 49   (2) 52   (3) 61   (4) 98

22. 42 : 20 : : 64 :?

    (1) 31   (2) 32   (3) 33   (4) 34

23. 121 : 12 : : 25 :?

    (1) 1   (2) 2   (3) 6   (4) 7

24. 26 : 5 : : 65 :?

    (1) 6   (2) 7   (3) 8   (4) 9

25. 6 : 35 : : 11 :?

    (1) 121   (2) 120   (3) 56   (4) 54

Direction (Q. 26 to Q.28) : Each of the following questions consists of a pair of numbers that have a certain relationship to each other, followed by four other pairs of numbers given as alternatives. Select the pair in which the numbers are similarly related as in the given pair.

26. 12 : 144

    (1) 22 : 464   (2) 20 : 400   (3) 15 : 135   (4) 10 : 140

27. 27 : 9

    (1) 64 : 8   (2) 125 : 5   (3) 135 : 15   (4) 729 : 81

28. 5 : 35

    (1) 7 : 77   (2) 9 : 45   (3) 11 : 55   (4) 3 : 24

Direction (Q. 29 to Q.32) : In each of the following questions, choose that set of numbers from the four alternative sets, that is similar to the given set.

29. Given set : (2, 14, 16)

    (1) (2, 7, 8)   (2) (2, 9, 16)   (3) (3, 21, 24)   (4) (4, 16, 18)

30. Given set : (3, 18, 36)

(1) (2, 10, 16) (2) (4, 24, 48) (3) (6, 42, 48) (4) (12, 72, 96)

31. Given set : (6, 15, 28)

(1) (46, 56, 66) (2) (50, 59, 71) (3) (60, 67, 72) (4) (60, 69, 82)

32. Given set : 363, 489, 579

(1) 562 (2) 471 (3) 382 (4) 281

BRAIN TEASERS

33. There are three pairs fo words. You must complete the third pair in the same way as the first two pairs.

(CUSTARD, CARD) (VIOLENT, VENT) (SAILING, [?])

(1) SALE (2) SAIL (3) SING (4) NAIL

Direction (Q 34 to Q. 38) : Identify the correct number which completes the second pair in the same way as the first pair.

34. 61 is to 121 as? is to 337

(1) 211 (2) 222 (3) 220 (4) 240

35. 3 is to 10 as 8 is to?

(1) 10 (2) 13 (3) 16 (4) 17

36. 6 : 222 : : 7 :?

(1) 210 (2) 336 (3) 343 (4) 350

37. 35 : 91 : : 189 :?

(1) 250 (2) 289 (3) 315 (4) 341

38. 6 : 18 : : 4 :?

(1) 2 (2) 6 (3) 8 (4) 16

Direction (Q.39 & Q.40) : In each of the following question, there is a certain relationship between two given numbers on one side of : : and one number is given on another side of : : while another number is to be found from the given alternatives, having the same relationship with this number as the numbers of the given pair bear. Choose the best alternative.

39. 11 : 1210

(1) 6 : 216 (2) 7 : 1029 (3) 8 : 448 (4) 9 : 729

40 Given set : 992, 733, 845, 632

(1) 114 (2) 326 (3) 425 (4) 947

ANSWERS

Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	3	1	1	3	1	2	2	2	1	2	3	3	3	3	4	4	2	4	2	4
Que.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
Ans.	2	1	3	3	2	2	4	1	3	2	4	2	3	1	4	4	4	3	3	3

EXERCISE

QUESTIONS RELATED TO VARIOUS OLYMPIADS

1. Find from the given alternatives a word which has the same relation with the third word sequence as the first word has with the second word.

   Glucose : Carbohydrate : : Soyabean :?

   (1) Proteins   (2) Vitamins   (3) Minerals   (4) Legumes

2. Find from the given alternatives a word which has the same relation with the third word sequence as the first word has with the second word.

   BLOCKED :: YOLXPVW as OZFMXS ::?

   (1) LAUGHS   (2) NAUGHT   (3) LAUNCH   (4) LABOUR

3. There is a certain relationship between pair of numbers given on either side of : :. Identify the relationship between the pair of numbers and select the option which will replace the question mark?

   0.16 : 0.0016 : : 1.02 :?

   (1) 0.0102   (2) 0.102   (3) 1.020   (4) 10.20

4. Find from the given alternatives a word which has the same relation with the third word sequence as the first word has with the second word.

   Peace : Chaos : : Creation :?

   (1) Build   (2) Construction   (3) Destruction   (4) Manufacture

5. Ornithologist : Bird : : Archealogist :?

   (1) Islands   (2) Mediators   (3) Archealogy   (4) Aquatic

ANSWERS

Que.	1	2	3	4	5
Ans.	1	3	1	3	3